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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,148

07/07/2003

Peter Weinhold

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21553

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04/01/2005

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EXAMINER

SAN MARTIN, EDGARDO

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,148

Applicant(s)

WEINHOLD ET AL.

Examiner

Edgardo San Martin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/28/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - The first line of the Abstract is redundant;
 - The reference to Figure 1 after the last line of the Abstract should be deleted;
 - The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed;
 - On page 3, line 15 the direct reference to claim 1 should be deleted;
 - The Headings of the different section of the Specification are missing;
 - On Page 9, line 14 the angular amounts are missing from within the parenthesis.

Appropriate correction is required.

Claim Objections

2. Claims 1, 2, 6, 10, 11, 13, 18 – 20 and 22 are objected to because of the following informalities:
 - In claim 1, line 1 delete “, in particular” to avoid 35 USC 112 second paragraph issues;
 - In claim 1, line 12 after “the slots (18’)” the comma should be deleted; in line 13 after “belong to adjacent” the comma should be deleted; and in line 14 the word “deflect” should be change for - - deflecting - -;

Art Unit: 2837

- In claim 2, line 2 after "of adjacent" the comma should be deleted;
- In claim 6, line 1 after "wherein" the word "those" should be deleted to avoid 35 USC 112 second paragraph issues;
- In claim 10, line 4 "(2') and (3') without" should be deleted and - - , which do not contain - - should be inserted;
- In claim 11, line 1 after "wherein" - - each of - - should be inserted and in line 2 after "(13 to 16)" the word "each" should be deleted;
- In claim 13, line 1 after "wherein" the phrase "each muffler stage/" should be deleted; and in line 3 the phrase ", preferably approximately 20" should be deleted to avoid 35 USC 112 second paragraph issues;
- In claim 18, line 3 "(from + α' to - α)" should be deleted;
- In claim 19, line 3 "/support (24)" should be deleted;
- In claim 20, line 2 it should read - - and - -, or - - or - - but no "and/or" in order to avoid 35 USC 112 second paragraph issues; and in line 3 "is/" should be deleted;
- In claim 22, line 2 "flow medium/" should be deleted; and in line 9 after "the housing (2)" insert a comma, and "in such a manner" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Floyd, Jr. (US 1,818,469) in view of Ford (GB 198,229).

With respect to claims 1 and 22, Floyd, Jr. teaches a muffler for internal combustion engines (Fig.1), having a housing through which a flow medium flows and which has at least one housing chamber, and in which deflecting elements (fig.1, Item 17) serving to make the flow medium swirl are arranged one behind another along a main axis of the housing and in a positionally fixed manner at a distance from one another, wherein an originally disk-shaped body having slots is provided as deflecting element and extends over the clear cross section of the housing, and wherein guiding elements which bound the slots are in the manner of guide vanes and belong to adjacent disk-shaped bodies (Fig.1; Page 1, Line 30 – Page 2, Line 28), but fails to disclose the guiding elements deflecting the flow in different directions with respect to the main axis of the housing.

On the other hand, Ford teaches a muffler comprising guiding elements deflecting the flow in different directions with respect to the main axis of the housing (Figs.1 and 2; Page 2, Lines 9 – 61).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Ford guiding element configuration with the Floyd, Jr. design because sound silencing could be obtained with no back pressure, without considerably affecting the efficiency of the engine.

With respect to claims 2 – 5, 8 – 11, 14, 16 and 20, the Examiner considers that Floyd, Jr. and Ford teach the limitations described in the claims (Floyd, Jr.; Figs.1 – 3, Items 17 and 26; and Ford; Figs.1 and 2).

With respect to claims 6 and 7, the Examiner considers that it would have been an obvious matter of design choice to employ guiding elements comprising a structural configuration as those comprised by pump's impellers or fan's propellers because this configuration would create a more predominant swirl effect that would help move out the gaseous medium from the muffler in a quicker manner.

With respect to claims 12, 13, 15 and 19, the Examiner considers that Floyd, Jr. teaches the limitations described in the claims (Figs.1 - 3, Items 16, 17 and 26).

With respect to claims 17 and 18, the Examiner considers that Ford teaches the limitations described in the claims (Figs.1 and 2; Page 2, Lines 9 – 61).

With respect to claim 21, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

Conclusion

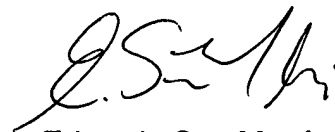
4. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín
Primary Examiner
Art Unit 2837
Class 181
March 30, 2005